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EDITORIAL INTRODUCTION TO THE SPECIAL ISSUE ON COLLABORATION ISSUES IN CROSS-ORGANIZATIONAL AND CROSS-BORDER IS/IT

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This special issue presents research on the topic of cross-organizational and cross-border collaboration, which is defined as the integration of people, systems, processes and infrastructure across organizations, borders, nations and world regions to enable productive teamwork and mutual goal attainment. There are two themes of the special issue that are emphasized in its three articles, *globalization of collaboration* and *virtual collaboration*.

In their quest for growth and new business opportunities, many companies increasingly pursue a global strategy through internationalizing their operations. They expand their presence across many countries and economic regions, through various means, such as strategic partnership, joint-ventures, acquisitions, and other expansions of the existing business.

In mature economies, this strategy and partnering with local firms enables convenient access to technology, expertise and other resources. In contrast, business presence in less mature and emerging markets helps to assure cost advantages. The extraordinary growth in personal incomes in many emerging economies also offers attractive opportunities to generate additional global sales.

While the global strategy creates opportunities, it adds multiple challenges to the management of *information technology* (IT). First, the technical integration of varied computer systems of different business units is a challenging task. Second, differences in economic, regulatory, and cultural environments add to the non-technical integration challenges.

Much of this strategic globalization is made possible through collaborative use of IT. In many cases, Internet-based IT provides essential support for communication and coordination between globally-distributed business units and divisions by assuring the efficient flow of data and information.

In addition to globalization, long term trends clearly indicate that virtual collaboration remains an important aspect of industry and academic research. Many factors have caused the workplace to shift from a physical place toward virtual collaboration, in which team members are distributed along several dimensions including location and time. One motivation for using virtual collaboration is that the expertise required for a project is often distributed among multiple organizations (Majchrzak, Malhotra, Stamps and Lipnack 2004). A second common motivation is to decrease the response time. By

using the time differences of their physical locations, virtual teams may work continuously, more efficiently, and faster (Roztock and Fjermestad 2005).

The trends in virtual collaboration are illustrated by studies that monitored and assessed the use of technology in the workplace. For example, 3M reported that the percentage of meetings involving remote participants nearly quadrupled over a ten-year period (3M Meeting Network 1998). Sixty-five percent of respondents in a second study reported that their company increased the use of virtual sales meetings over a three-year period (Gibson and Cohen 2003). Similar increases in the use of digital collaboration tools such as audio, video, and Web-based conferencing have also been reported (Goodridge 2001; POLYCOM 2002; Williams 2001). The growing prevalence of virtual teams has also inspired an increasing number of researchers to study this emergent area (Powell, Piccoli and Ives 2004).

Many organizations have implemented Internet-based systems (e.g., video-conferencing,

email, instant messaging, voice-over-IP, and interactive document sharing) to enable team members to work across geographical and temporal boundaries (Jarvenpaa, Knoll and Leidner 1998; Lipnack and Stamps 1997; Malhotra, Majchrzak, Carman and Lott 2001). Already in the late 1990s, the Wall Street Journal reported that more than half of firms with 5,000 or more employees employed virtual teams (de Lissers 1999). A survey by the Gartner Group found that more than sixty percent of professional employees worked in virtual teams in 2002 (Kanawattanachai and Yoo 2002).

Gibson and Cohen (2003) report that virtual teams, in which members use technology to interact with one another across geographic, organizational, and other boundaries, are becoming commonplace in organizations. Martins et al. (2004) in a large review of virtual team literature concluded that “*with rare exceptions all organizational teams are virtual to some extent.*” The Center for Creative Leadership in their 2004/2005 survey of teams found that 65 percent of respondents

reported that team members are geographically dispersed and that 51 percent were interested in virtual team leadership training (Martin and Bal 2006).

Consequently, this special issue was organized over the past year. Manuscripts received from an open call were sent to reviewers. Approximately, one fifth of the submissions were eventually accepted with revisions, based on reviews. Some of the manuscripts submitted were expanded research from the track on “Collaboration Issues in Cross-Organizational and Cross-Border IS/IT” at the 40th HICSS in 2006 co-chaired by the present guest-editors. The special issue contains three articles, which are described and linked to the two themes: *globalization of collaboration* and *virtual collaboration*.

The first article, “Complexity and Context: Emerging Forms of Collaborative Inter-Organizational Systems,” by Martin Fahy, Joseph Feller, Patrick Finnegan, and Ciarari Murphy, examines inter-organizational collaboration by case-study analysis of inter-organizational systems (IOSs) in the industry sectors of telecommunications, news media, and financial services.

The article emphasizes one theory of IOSs from Kumar and van Dissel (1996), exploring that theory through three case studies. Based on the empirical findings, it then proposes to enlarge the theory. The paper assumes the growing complexity of IOSs that implies that older concepts and theories need to be updated.

This study contributes to the special issue by proposing an extended theory of IOS interdependencies that can accommodate increasingly complex and global interrelationships. It further analyzes three large organizations that support complex IOSs to validate the expanded theory. It relates well to the special issue themes of growing virtual collaboration and globalization of collaboration.

The second article, “An Integrative Framework for Contextual Factors Affecting Information Technology Implementation,” by Namchul Shim and Barbara Edgington takes the perspective of factors that encourage IT

implementation success. Based on a literature review, it expands on Weill's (1992) conversion effectiveness model. This leads to an integrated framework for contextual factors in IT implementation. This framework is discussed in terms of the cross-border issues that arise from global outsourcing.

This article relates to the special issue by its consideration of cross-border IT (global outsourcing) as a contextual factor in the modified IT conversion model. Since global outsourcing has expanded rapidly in the past decade, it is essential to include it in a conversion effectiveness model. This ties in to the special issue theme of global collaboration. In this article virtual collaboration is considered little, since the focus is on the IT conversion model, which does not necessarily depend on virtual environments. The study calls for empirical research that would test the expanded Weill (1992) model.

The third article, "Determinants of Effective Leadership in Information Systems

Development Teams: An Exploratory Study of Face-to-Face and Virtual Contexts," by Darren Nicholson, Saonee Sarker, Suprateek Sarker, and Joseph Valacich, compares the effectiveness of leadership for face-to-face and virtual systems development teams in the United States and Norway.

This research is significant in that it emphasizes the team leaders of systems development, versus other studies that have focused on system outcomes, success, speed, and effectiveness. Further, the study compares the leaders across two national cultures and for face-to-face versus virtual teams. It relates to both special-issue themes of virtual and global collaboration. The study provides empirical evidence of how effective systems development leadership is achieved in the contexts of virtual versus face-to-face, national culture, and systems development phase.

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